



# Joint Light Tactical Vehicle (JLTV): Background and Issues for Congress

**Andrew Feickert**

Specialist in Military Ground Forces

September 17, 2010

**Congressional Research Service**

7-5700

[www.crs.gov](http://www.crs.gov)

RS22942

Report Documentation Page				Form Approved OMB No. 0704-0188	
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>17 SEP 2010</b>		2. REPORT TYPE		3. DATES COVERED <b>00-00-2010 to 00-00-2010</b>	
4. TITLE AND SUBTITLE <b>Joint Light Tactical Vehicle (JLTV): Background and Issues for Congress</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Congressional Research Service, Library of Congress, 101 Independence Ave., SE, Washington, DC, 20540-7500</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	18. NUMBER OF PAGES <b>12</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

## Summary

The Joint Light Tactical Vehicle (JLTV) is currently being developed by the Army and the Marine Corps as a successor to the 11 different versions of the High Mobility, Multi-Wheeled Vehicle (HMMWV) that have been in service since 1985. On October 28, 2008, three awards were made for the JLTV Technology Development (TD) Phase, which is scheduled to conclude in the June 2011 timeframe, for a total of \$166 million to three industry teams. Prototypes from (1) BAE Systems, (2) the team of Lockheed Martin and General Tactical Vehicle, and (3) AM General and General Dynamics Land Systems are being tested at Aberdeen Test Center in Maryland and the Yuma Proving Ground in Arizona for each of the three JLTV categories. Once testing is completed and technology requirements are established, a full and open competition is expected to be conducted in the late summer, 2011, for the Engineering and Manufacturing Development (EMD) Phase. The Department of Defense (DOD) plans to award two contracts for the EMD phase, which is scheduled to last 24 months.

The Marines have expressed reservations with the JLTV program because, at its current estimated weight of 20,000 pounds, it does not lend itself to Marine Corps expeditionary operations. The Marines do not rule out removing themselves from the program and modifying current vehicles if developers cannot address their specific requirements. The Army is said to be “moving ahead” with the JLTV program, appearing less concerned than the Marines that final JLTV versions might not be CH-47 and CH-53 helicopter and C-130 cargo aircraft transportable. Some describe the Army and Marines as “striking out on a separate path” with the Army more concerned with survivability and the Marines concerned that heavier JLTVs could cause weight problems on the Navy’s amphibious ships.

DOD has not publically assigned a definitive cost to the JLTV program, suggesting that it is too early in the development process to determine an accurate cost estimate. Some defense and trade analysts suggest that the JLTV program will cost well over \$10 billion and possibly as much as \$30 billion to \$70 billion, depending on the final cost of the vehicles chosen and the number of vehicles procured. There are also concerns that JLTV program costs will increase as the program moves through the TD phase of development.

Congress has recommended fully funding DOD’s FY2011 JLTV Budget Request for \$84.7 million for research, development, test, and evaluation (RDT&E) but has directed that the Army and Marines establish separate RDT&E accounts for the JLTV program to enhance oversight and increase program transparency. The Senate Appropriations Defense Subcommittee has reportedly recommended that the funding for the JLTV EMD contract would be more appropriately considered in the FY2012 Budget Request and therefore decreased the Marine Corps FY2011 request by \$16.3 million and the Army’s request by \$15.2 million.

Concerns have been expressed that DOD’s Mine-Resistant, Ambush-Protected (MRAP) All - Terrain Vehicle (M-ATV) effort will clash with the JLTV. Some defense officials note a “striking similarity” between the M-ATVs and JLTVs, suggesting potential redundancies between the two vehicles. There are also concerns about overall JLTV program affordability and costs, as well as the Army’s decision to not provide an estimate on future quantities of JLTVs to be procured in the June 2010 Tactical Wheeled Vehicle Acquisition Strategy report to Congress. Some view this lack of an Army procurement objective for JLTVs as an open-ended commitment which could have future cost implications. This report will be updated as events warrant.

## Contents

Background .....	1
JLTV Program.....	1
What Is the JLTV? .....	1
Program Structure .....	2
Program History.....	2
Technology Development Contracts Awarded.....	2
JLTV Contracts Protested.....	3
JLTV Program Activities .....	3
Marines' Concerns with the JLTV Program .....	4
United States and Australia Agree on Joint JLTV Development .....	4
Program Cost and Funding .....	4
FY2011 JLTV Budget Request .....	5
House Armed Services Committee (HASC) Markup of the FY2011 National Defense Authorization Act (H.R. 5136) .....	5
Senate Armed Services Committee (SASC) Markup of the FY2011 National Defense Authorization Act (S. 3545) .....	5
Senate Appropriations Defense Subcommittee Markup of the FY2011 Department of Defense Appropriations Bill .....	6
Current JLTV Topics .....	6
JLTVs Versus MRAPs.....	6
International Procurement of JLTVs? .....	7
Potential Issues for Congress.....	7
JLTV Affordability .....	7
Marine Corps Concerns with JLTV Weight and Transportability.....	8
JLTV and M-ATV Redundancies .....	8
JLTV and the Army's Tactical Wheeled Vehicle Acquisition Strategy .....	8

## Contacts

Author Contact Information .....	9
----------------------------------	---

## Background<sup>1</sup>

The JLTV is an Army-led, multi-service initiative to develop a family of future light tactical vehicles to replace many of the 160,000 HMMWVs used by the armed services today. HMMWVs, which first entered service in 1985, were developed during the Cold War when improvised explosive devices (IEDs) and other anti-vehicle explosive devices were not a major factor in military planning. The HMMWV's demonstrated vulnerability to IEDs and the difficulties and costs experienced in "up-armoring" HMMWVs already in the inventory have led to renewed emphasis on vehicle survivability. With more than 50% of the Army's total tactical wheeled vehicle fleet nearing the end of its useful life, and with the needs of the services to repair equipment and grow their forces, the JLTV, with its scalable armor protection, is intended to replace a large portion of the HMMWV fleet. DOD officials have emphasized that JLTVs are not intended to replace HMMWVs "one for one."<sup>2</sup> The Army plans to divest its older HMMWVs and through means of recapitalization, intends to have approximately 85,000 HMMWVs still in service as of 2025 and will fill other light tactical vehicle requirements with a yet to be determined number of JLTVs.<sup>3</sup>

## JLTV Program<sup>4</sup>

### What Is the JLTV?

The JLTV program is a joint Army/Marine Corps effort to develop and produce three categories of vehicles and associated trailers. Category A JLTVs are intended for general purpose mobility and would carry a 3,500 pound payload. Category Bs are intended to serve as infantry carriers, command and control and reconnaissance vehicles, and weapons carriers and would accommodate a 4,000 to 4,500 pound payload. Category Cs are intended to serve as shelter carriers, prime movers, and ambulances and would carry a 5,100 pound payload. JLTVs are to be designed with scalable armor, enhanced suspension, and drive train capability to accommodate future load carrying capacity. As planned, JLTVs would be more mechanically reliable, maintainable (with on-board diagnostics), all-terrain mobile, and equipped to link into current and future tactical data nets. Strategic and operational transportability by ship and aircraft are also key JLTV design requirements.

---

<sup>1</sup> Alan L. Gropman, "Combat Vehicle Sector Could be Headed for Turbulent Times," *National Defense*, April 25, 2008, and James P. Miller, "Race is On to Replace Humvee," *Chicago Tribune*, June 21, 2008.

<sup>2</sup> Kris Osborn, "DOD's JLTV Becoming an International Effort," *Defense News*, August 4, 2008.

<sup>3</sup> Headquarters, Department of the Army, "Army Truck Program (Tactical Wheeled Vehicle Acquisition Strategy) Report to the Congress," June 2010, p. 5. This report was obtained through *InsideDefense.com*.

<sup>4</sup> Information in this section is taken from the Army Product Manager, Joint Light Tactical Vehicle website, <http://peocscss.tacom.army.mil/pmJLTV.html>, last visited January 7, 2009, and Marine Corps PEO Land Systems Joint Light Tactical Vehicle website, <http://www.marcorsyscom.usmc.mil/peolandssystems/jltv.aspx>, last visited January 7, 2009.

## **Program Structure<sup>5</sup>**

The JLTV is an Acquisition Category (ACAT) 1D program.<sup>6</sup> The Army bears the overall responsibility for developing the JLTV through its Joint Program Office within the Army's Tank, Automotive, and Armament Command (TACOM) in Warren, MI. Marine participation is centered on a program office under the supervision of the Program Executive Officer Land Systems (PEO LS) Marine Corps at Quantico, VA.

## **Program History**

In November 2006, the Joint Chief of Staff's Joint Requirement Oversight Council (JROC) approved the JLTV program. On December 22, 2007, the Under Secretary of Defense for Acquisition, Technology, and Logistics USD (AT&L) signed an Acquisition Decision Memorandum (ADM) directing the JLTV Program to move from the Concept Refinement Phase into the Technology Development (TD) Phase of the DOD System Acquisition Process. The Army and Marines had intended to issue a Request for Proposal (RFP) for Technology Development Phase as early as October 2007. Concerned with funding adequacy, technical maturity, and shifting requirements, the Pentagon's acquisition executive, John Young, disapproved the issuance of the RFP and directed the Army and Marines to "go back to the drawing board and develop a robust technology development phase."<sup>7</sup> On February 5, 2008, an RFP for Technology Development Phase was issued to industry.<sup>8</sup> The RFP stated that the government desired to award three contracts for the JLTV Technology Development Phase. The RFP stipulated that proposals would be due April 7, 2008, and the TDP would last 27 months. Contractors would build four test sub-configurations during the first 15 months, followed by 12 months of testing.

## **Technology Development Contracts Awarded<sup>9</sup>**

On October 28, 2008, three awards were made for the JLTV TD Phase for a total of \$166 million. The three industry teams were (1) BAE Systems Land and Armaments, Ground Systems Division, Santa Clara, CA; (2) General Tactical Vehicles, Sterling Heights, MI—a joint venture between General Dynamics Land Systems and AM General; and (3) Lockheed Martin Systems Integration, Oswego, NY.

---

<sup>5</sup> CRS Report RL34026, *Defense Acquisitions: How DOD Acquires Weapon Systems and Recent Efforts to Reform the Process*, by Moshe Schwartz, provides an extensive discussion of the defense acquisition process.

<sup>6</sup> The 12<sup>th</sup> Edition of the *Defense Acquisition University Glossary*, July 2005, defines an ACAT 1D program as "a Major Defense Acquisition Program (MDAP) which is estimated by the Under Secretary of Defense (Acquisition, Technology, and Logistics) (USD (AT&L)) to require the eventual expenditure for Research, Development, Test, and Evaluation (RDT&E) of more than \$365 million (FY2000 constant dollars) or the procurement of more than \$2.19 billion (FY2000 constant dollars)."

<sup>7</sup> Jason Sherman, "Pentagon Halts JLTV Competition, Directs Revised Strategy," *InsideDefense.com*, September 24, 2007.

<sup>8</sup> JLTV Request for Proposal, W56HZV-08-R-0210, February 5, 2008, and Marjorie Censer, "JLTV Solicitation Calls for Three Contractors: Officials Say More are Possible," *InsideDefense.com*, February 5, 2008.

<sup>9</sup> Unless otherwise noted, information in this section is taken from TACOM's JLTV Program website, <http://contracting.tacom.army.mil/MAJORSYS/JLTV/jltv.htm>, updated on November 13, 2008, accessed January 7, 2009, and the Marine Corps PEO Land Systems JLTV website, <https://www.marcorsyscom.usmc.mil/peolandsystems/jltv.aspx>, accessed January 7, 2009.

## **JLTV Contracts Protested**

On November 7 and November 12, 2008, protests were filed with the Government Accountability Office (GAO) against the TD contract awards by the Northrop Grumman-Oshkosh team and the Textron-Boeing-SAIC team alleging that there were “unintended discrepancies” in how the government rated bids in terms of the criteria of systems maturity, logistics, and costs.<sup>10</sup> As a result of this protest, work on the JLTV program by the three winning teams was suspended, and the JLTV program office expected that it would take GAO 90 to 120 days (February-March 2009 time frame) to complete its investigative report on the protests. On February 17, 2009, GAO rejected the JLTV protests and the stop work orders were lifted.

## **JLTV Program Activities**

The JLTV Program is currently in the Technology Development (TD) Phase<sup>11</sup> of acquisition which is scheduled to conclude in the June 2011 timeframe.<sup>12</sup> Prototypes from BAE Systems, and the teams of Lockheed Martin and General Tactical Vehicle, and AM General and General Dynamics Land Systems for each of the three JLTV categories are being tested at Aberdeen Test Center in Maryland and the Yuma Proving Ground in Arizona. Once testing is completed and technology requirements are established, a full and open competition is expected to be conducted in the late summer of 2011 for the Engineering and Manufacturing Development (EMD) Phase.<sup>13</sup> DOD plans to award two contracts for the EMD phase, which is scheduled to last 24 months.<sup>14</sup> The EMD period is planned to be broken into 18 months of design and fabrication and 12 months of test, with a six month overlap between the two activities. DOD will reportedly make a final decision on the EMD acquisition approach in the fall of 2010 and anticipates awarding EMD contracts in December 2011.<sup>15</sup>

---

<sup>10</sup> Marjorie Censer, “Following Northrop’s Lead, Boeing-Textron Team Files JLTV Protest,” *InsideDefense.com*, November 12, 2008 and Ann Roosevelt, “Textron-Team Protests Army JLTV Awards,” *Defense Daily*, November 13, 2008; and Daniel Wasserbly, “U.S. GAO Rejects JLTV Protests,” *Jane’s Defence Weekly*, February 25, 2009, p. 12 .

<sup>11</sup> From the November 2009 Defense Acquisition University Glossary of Defense Acquisition Acronyms & Terms, the Technology Development (TD) Phase is the second phase of the Defense Acquisition Management System and the purpose of this phase is to reduce technology risk and to determine the appropriate set of technologies to be integrated into the full system.

<sup>12</sup> Matthew Cox, “Prototypes for JLTV to Undergo Testing Over Next 12 Months,” *Marine Corps Times*, June 21, 2010, p. 32 and Ann Roosevelt, “JLTV TD Phase Deliveries Continue, Army Fleshing Out JLTV EMD,” *Defense Daily*, July 23, 2010.

<sup>13</sup> The EMD phase for the JLTV program will focus on reducing program risk, ensuring operational supportability, designing for producibility, maximizing affordability, ensuring critical program information protection, and demonstrating system integration, interoperability, transportability, fuel efficiency, reliability, and utility.

<sup>14</sup> DOD Briefing: “JLTV EMD Industry Day,” April 26, 2010.

<sup>15</sup> Christopher J. Castelli, “DOD Blesses JLTV Plans, Delays Decision on EMD Acquisition Approach,” *InsideDefense.com*, August 24, 2010.

## **Marines' Concerns with the JLTV Program<sup>16</sup>**

The Marines have expressed reservations with the JLTV program because, at its current estimated weight of 20,000 pounds, it does not lend itself to Marine Corps expeditionary operations. Marine Corps leadership is concerned that the prototypes shown so far by industry are too heavy to be transported by helicopters and faults industry for failing to stay “apace of the vision” for the JLTV. The Marines do not rule out removing themselves from the program and modifying current vehicles if developers cannot address their specific requirements. The Army is said to be “moving ahead” with the JLTV program, appearing less concerned than the Marines that final JLTV versions might not be CH-47 and CH-53 helicopter and C-130 cargo aircraft transportable. Some describe the Army and Marines as “striking out on a separate path” with the Army more concerned with survivability and the Marines concerned that heavier JLTVs could cause weight problems on the Navy’s amphibious ships.<sup>17</sup> Concerned about weight, the Marines are reportedly testing Textron’s Small Combat Tactical Vehicle Capsule (SCTVC), a bolt-on capsule that fits onto the chassis of existing HMMWVs, as an alternative to the JLTV.<sup>18</sup>

## **United States and Australia Agree on Joint JLTV Development<sup>19</sup>**

In February 2009, the Pentagon and the Australian Department of Defence signed an agreement to coordinate the technology development for the JLTV. Under this agreement, 30 JLTV prototypes will now be developed, with the United States funding the development of 21 prototypes and Australia funding nine. Australia reportedly has a need for about 1,300 to 1,400 vehicles with requirements similar to the JLTV, although Australian defense officials note that Australia’s participation in JLTV technology development does not automatically mean that they will eventually procure JLTVs. DOD is said to be pursuing similar arrangements with other countries, and negotiations are ongoing with Israel, Canada, and the United Kingdom. Test vehicles from all three teams were reported to have been delivered to Australia for testing but it is not known to what extent Australia will participate in both testing and the overall EMD phase.<sup>20</sup>

## **Program Cost and Funding<sup>21</sup>**

DOD has not publically assigned a definitive cost to the JLTV program, suggesting that it is too early in the development process to determine an accurate cost estimate. Some defense and trade analysts suggest that the JLTV program will cost well over \$10 billion and possibly as much as

---

<sup>16</sup> Marjorie Censer, “Citing Weight, Commandant Says Marines May Have to Depart JLTV Program,” *InsideDefense.com*, April 29, 2009 and Dan Lamothe, “Weight Issues Aside, Army Sticks With JLTV,” *Army Times*, May 18, 2009.

<sup>17</sup> Kate Brannen, “Mobility Vs. Survivability: JLTV Could Suffer as U.S. Army, Marines Diverge,” *Defense News*, June 7, 2010.

<sup>18</sup> *Ibid.*

<sup>19</sup> Daniel Wasserbly, “U.S. and Australia to Join Forces on JLTV Programme,” *Jane’s Defence Weekly*, March 4, 2009, p. 12 and Marjorie Censer, “DOD Inks Formal JLTV Agreement with Australia; More Partnerships Planned,” *InsideDefense.com*, February 26, 2009.

<sup>20</sup> Tony Bertuca, “JLTV Moves Forward with Testing as Vehicles Arrive in Australia,” *InsideDefense.com*, August 24, 2010.

<sup>21</sup> Jason Sherman and Daniel G. Dupont, “JLTV Price Tag Drives New Three Step Tactical Vehicle Plan for the Army,” *InsideDefense.com*, August 8, 2008.



\$30 billion to \$70 billion, depending on the final cost of the vehicles chosen and the number of vehicles procured.<sup>22</sup> The Army estimates that each JLTV will cost \$418,000, almost 70% higher than the target cost of \$250,000 per vehicle that would have enabled the Army to replace all of its HMMWV's with JLTVs. One estimate by the Center for Army Analysis suggests that it would require about \$6.7 billion per year to outfit all Army brigades over 15 years with JLTVs.

### **FY2011 JLTV Budget Request<sup>23</sup>**

The FY2011 Budget Request for JLTVs is \$52.9 million for Army Research, Development, Test and Evaluation (RDT&E) and \$31.8 million for Marine Corps RDT&E, for a program total of \$84.7 million.

### **House Armed Services Committee (HASC) Markup of the FY2011 National Defense Authorization Act (H.R. 5136)**

The HASC recommended fully funding DOD's FY2011 JLTV Budget Request. The HASC, however, was concerned that the JLTV would fall victim to cost growth and unnecessary schedule delays that often occur in major DOD acquisition programs. Noting that the JLTV investment to date is approximately \$298.5 million and that the projected JLTV investment for FY2011-2015 is at least \$9.7 billion, the HASC directed that separate RDT&E program elements be established for the Army and Marines beginning FY2012.<sup>24</sup> The HASC believes that this measure will provide congressional defense committees with increased transparency and lead to more effective oversight.<sup>25</sup>

### **Senate Armed Services Committee (SASC) Markup of the FY2011 National Defense Authorization Act (S. 3545)**

The SASC recommended fully funding DOD's FY2011 JLTV Budget Request.<sup>26</sup>

---

<sup>22</sup> Andrea Shalal-Esa, "Companies Jockey for Huge U.S. Military Truck Program," *Reuters*, November 12, 2007.

<sup>23</sup> United States Department of Defense Fiscal Year 2011 Budget Request Program Acquisition Costs by Weapon System, February 2010, p. 3-2.

<sup>24</sup> National Defense Authorization Act for Fiscal Year 2011, Report to the Committee on Armed Services House of Representatives, Report 111-491, May 21, 2010, pp.215-216.

<sup>25</sup> Ibid.

<sup>26</sup> National Defense Authorization Act for Fiscal Year 2011, Report to the Committee on Armed Services United States Senate, Report 111-201, June 4, 2010.

## **Senate Appropriations Defense Subcommittee Markup of the FY2011 Department of Defense Appropriations Bill<sup>27</sup>**

The Senate Appropriations Defense Subcommittee has reportedly recommended that the funding for the JLTV EMD contract would be more appropriately considered in the FY2012 Budget Request and therefore decreased the Marine Corps FY2011 request by \$16.3 million and the Army's request by \$15.2 million. The Subcommittee noted that these funds would be sufficient to continue ongoing technology development activities. The Subcommittee has expressed concern about the slow rate at which the JLTV program has expended funds and while there has been some improvement, concerns remain. It is not known if the House Appropriations Defense Subcommittee has made similar recommendations as committee markup deliberations have not been made public.

## **Current JLTV Topics**

### **JLTVs Versus MRAPs<sup>28</sup>**

In late 2007, the Department of Defense (DOD) launched a major procurement initiative to replace most uparmored High Mobility, Multi-Wheeled Vehicles (HMMWVs) in Iraq with Mine-Resistant, Ambush-Protected (MRAP) vehicles by FY2009. MRAPs have been described as providing significantly more protection against IEDs than uparmored HMMWVs. DOD approved the acquisition of 15,858 MRAPs of all categories.<sup>29</sup> When the JLTV program first started in late 2006, the 15,858 MRAP requirement did not exist.

The unforecasted procurement of significant numbers of the costly MRAPs has had an impact on the JLTV program. The Army has stated that MRAPs “fill a near-term, urgent joint service requirement for enhanced crew protection” for both the Army and Marines and that JLTVs are the long term solution for the services.<sup>30</sup> While the services do not view the JLTV and MRAP as an “either/or” proposition, some might question the affordability and necessity of maintaining both programs given their overlapping missions and requirements.

DOD's 2008 decision to acquire a new, lightweight MRAP—the MRAP All-Terrain Vehicle, or M-ATV (in addition to the almost 16,000 MRAPs to be procured by the end of 2009) adds another dimension to the JLTV versus MRAP debate.<sup>31</sup> With anywhere from 2,000 to 10,000 of these new vehicles to be procured, some analysts suggest that the number of JLTVs to be acquired could be offset by these M-ATVs. Senior Army officials suggest that the M-ATV effort will not

---

<sup>27</sup> Information in this section is taken from Cid Standifer, “Senate Appropriators Add Funds to Terminate EFV,” *InsideDefense.com*, September 16, 2010, and a draft copy of S.Rept. 111-0, Department of Defense Appropriations Bill, 2011, dated September 00, 2010, which was obtained from *InsideDefense.com* on September 17, 2010.

<sup>28</sup> For additional information on MRAPs, see CRS Report RS22707, *Mine-Resistant, Ambush-Protected (MRAP) Vehicles: Background and Issues for Congress*, by Andrew Feickert.

<sup>29</sup> Marjorie Censer, “DOD Reports More Than 11,000 MRAP Vehicles Already in Theater,” *InsideDefense.com*, August 11, 2008.

<sup>30</sup> Statement of Lieutenant General Stephen M. Speakes before the House Air and Land Forces Subcommittee on the Army Force Protection Program, January 18, 2007, pp. 1-2.

<sup>31</sup> Kris Osborn, “DOD Doubles Potential Buy of Lighter MRAPs,” *Defense News*, November 17, 2008.

“clash with JLTV,”<sup>32</sup> but other defense officials note a “striking similarity” between the M-ATVs and JLTVs, suggesting potential redundancies between the two vehicles.<sup>33</sup> Other analysts also suggest that a large M-ATV purchase (closer to 10,000 than 2,000) could affect the number of JLTVs that the Army eventually purchases.<sup>34</sup>

## **International Procurement of JLTVs?**

U.S. defense officials have expressed an interest in international involvement in the JLTV program, and to date, Australia, Britain, and possibly Israel and Canada have indicated that they may participate in and fund prototypes during the Technology Development phase.<sup>35</sup> The Pentagon’s planned initial purchase of 60,000 JLTVs for the services could be increased if there is international participation in the program. There are concerns, however, that because of some of the advanced technologies that may be incorporated into the JLTV, it may prove to be difficult to obtain export licenses from the State Department.<sup>36</sup> Some believe that Congress, too, could play a role by expressly barring the sale of advance technology JLTVs to foreign governments, as it did in the recent case of the F-22 *Raptor* aircraft.<sup>37</sup> Others suggest that export problems are not likely to arise in a light vehicle such as the JLTV, noting that HMMWVs have been sold to numerous Asian and Middle Eastern countries.<sup>38</sup> If JLTV export is permitted and countries order significant numbers of JLTVs, the per-vehicle cost could possibly decrease, thereby addressing some of the JLTV affordability concerns raised by U.S. officials.

## **Potential Issues for Congress**

### **JLTV Affordability**

In testimony on DOD weapons programs, the Government Accountability Office (GAO) asserted that total acquisition costs for the FY2007 portfolio of major defense acquisition programs still in the System Development and Demonstration (SDD) phase increased 26% and development costs increased by 40% from first estimates.<sup>39</sup> As previously noted, while still in the Technology Development (TD) phase, the Army estimates that each JLTV will cost \$418,000—almost 70% higher than the target cost of \$250,000 per vehicle. In comparison with GAO’s data, JLTV costs appear to be significantly higher than FY2007 program averages and could possibly increase even

---

<sup>32</sup> Emelie Rutherford, “Speakers: Potential MRAP Lite Effort Won’t Clash With JLTV,” *Defense Daily*, October 9, 2008.

<sup>33</sup> Kris Osborn, “What’s Next for JLTV,” *Defense News*, November 10, 2008.

<sup>34</sup> Kris Osborn, “DOD Double Potential Buy of Lighter MRAPs,” *Defense News*, November 17, 2008.

<sup>35</sup> Edmond Lococo and Tony Capaccio, “U.S. Humvee-Replacement Effort May Get Funding from Four Allies,” *Bloomberg.com*, October 1, 2008.

<sup>36</sup> Kris Osborn, “DOD’s JLTV Becoming International Effort,” *Defense News*, August 4, 2008.

<sup>37</sup> In CRS Report RS22684, *Potential F-22 Raptor Export to Japan*, by Christopher Bolkcom and Emma Chanlett-Avery, CRS notes that export of the F-22 has been denied by Congress in FY1998, FY2001, and FY2005. This provision, known as the “Obey Amendment,” was debated in the 109<sup>th</sup> Congress, and a move to repeal this amendment in the FY2007 Defense Appropriations bill was blocked by the Senate.

<sup>38</sup> Kris Osborn, “DOD’s JLTV Becoming International Effort,” *Defense News*, August 4, 2008.

<sup>39</sup> United States Government Accountability Office (GAO) Testimony, *Defense Acquisitions: Results of Annual Assessment of DOD Weapon Programs*, GAO-08-674T, April 29, 2008, p. 2.

more as JLTV progresses through the SDD phase. JLTV's early above-average cost growth may merit greater congressional oversight. With possible foreign involvement in JLTV development and acquisition, there might be potential cost savings that could drive down the per unit cost of JLTVs destined for the U.S. military.

## **Marine Corps Concerns with JLTV Weight and Transportability**

Based on reports, there appears to be concern that JLTV prototypes under development may exceed air transportability requirements and that they might also pose a weight and size problem on amphibious ships. Such concerns are not unfounded, given experiences in developing MRAPs and with the Army's cancelled Future Combat System (FCS) Manned Ground Vehicles, which were originally intended to be C-130 transportable but during design became too large and too heavy to fit on C-130s. Given the Marines' stated concerns about industry losing sight of JLTV's expeditionary requirements, Congress might opt to review the current state of JLTV development with DOD and industry to insure that JLTVs remain both "light" and expeditionary. A further issue for review might also be the Army's and Marines' overall approach to the JLTV program, as some have described their approaches as divergent, which could cause programmatic difficulties in the future.

## **JLTV and M-ATV Redundancies**

As previously noted, concerns have been raised that the JLTV and the M-ATV share many common characteristics and that there might be significant program redundancies. In August 2009 briefings to the House Armed Services Committee Air and Land Forces, and Seapower and Expeditionary Forces Subcommittees, the Government Accountability Office (GAO) noted that "the introduction of MRAP, M-ATV and eventually the JLTV creates a potential risk of unplanned overlap in capabilities; a risk that needs to be managed."<sup>40</sup> Defense officials have been asked if there is a need for the MRAP/M-ATV and JLTV programs as these programs share as many as 250 requirements.<sup>41</sup> While DOD leadership notes that there are 450 additional requirements that the MRAPs and M-ATVs can not meet, thereby justifying the JLTV program,<sup>42</sup> the Army's intent to develop a fourth type of vehicle—the Ultra-Lite MRAP—calls into question the need for all four programs. Despite calls from Congress for DOD and the Services to develop comprehensive tactical wheeled vehicle strategies it appears that there are a significant number of redundancies that will be examined in greater detail before the JLTV program enters production and procurement.

## **JLTV and the Army's Tactical Wheeled Vehicle Acquisition Strategy**

In accordance with the provisions of the FY2010 Department of Defense Appropriations Act (P.L. 111-118) the Army provided a report to the congressional defense committees detailing the

---

<sup>40</sup> GAO Briefing to the House Armed Services Committee Air and Land Forces, and Seapower and Expeditionary Forces Subcommittees, "Status of DOD Tactical Wheeled Vehicle Strategy," August 13, 2009, p. 3.

<sup>41</sup> Cid Standifer, "Taylor: JLTV Absolutely Needed, Regardless of MRAP and M-ATV," *Inside the Navy*, November 9, 2009.

<sup>42</sup> Ibid.

Army's acquisition strategy for future truck procurement in August 2010.<sup>43</sup> While the report provides future (2025) acquisition quantities for light tactical vehicles such as HMMWVs, as well as medium and heavy tactical wheeled vehicles, the report notes that JLTV quantities are "to be determined (TBD)." The Army maintains that because several key studies that will influence JLTV procurement are not yet complete and that future force size is still in question, an estimate on the number of JLTVs is not possible.<sup>44</sup> While the Army's report does not provide JLTV procurement quantities, service officials reportedly have said that the Army plans to procure 60,000 JLTVs and the Marines, 5,500 by 2025.<sup>45</sup> The Army's unwillingness to include even a possible range of JLTV procurement quantities in its report to Congress raises a number of issues. If the estimate of 60,000 JLTVs is valid as reports suggest, why did the Army not include it as an upper limit in the report to Congress? In addition, if the Army is that unsure of JLTV procurement totals, should the program continue or should it be modified until the Army can produce definitive requirements? If these requirements are, to a large extent, based on future force structure some observers maintain that a more prudent plan would be to delay the program until the Army agrees on that future force structure. Program costs, as well as costs per vehicle, would likely vary significantly based on total JLTV quantities to be procured and, as it stands now, with final quantities "TBD," the JLTV program represents an open-ended commitment which carries with it considerable future cost implications.

## **Author Contact Information**

Andrew Feickert  
Specialist in Military Ground Forces  
afeickert@crs.loc.gov, 7-7673

---

<sup>43</sup> Information in this section, unless otherwise noted is from a Headquarters, Department of the Army Report to Congress, Army Truck Program (Tactical Wheeled Vehicle Acquisition Strategy) June 2010, obtained from InsideDefense.com, September 2, 2010.

<sup>44</sup> Kate Brannen, "Decisions on Trucks Still Incomplete," *Defense News*, August 20, 2010 and Tony Bertuca. "JLTV Procurement TBD: Army Tactical Wheeled Vehicle Strategy Advocates Buy Less, More Often," *InsideDefense.com*, August 23, 2010.

<sup>45</sup> Ibid.